

ABSTRACT

Phosphinines of formula (I) can be combined with metal salts to prepare hydroformylation catalysts. The phosphinine complexes have two phosphorus centers that may be substituted with a variety of hetero atoms or alkyl substituents to modify the ligand characteristics of the phosphinine. Phosphinine metal complexes are employed under normal hydroformylation reaction conditions. The preparatory routes to the phosphinine ligands of formula (I) allow for their convenient synthesis.

